

IN THE CLAIMS

1. (Currently Amended) A thermal transfer material, comprising:

a heat spreader component, wherein the heat spreader component comprises a top surface, a bottom surface and at least one heat spreader material and wherein the heat spreader component comprises a thickness of about 0.25 mm to about 6 mm, and

at least one solder material, wherein the solder material is directly deposited onto the bottom surface of the heat spreader component.
2. (Previously Presented) The thermal transfer material of claim 1, wherein the solder material is further coupled to a substrate.
3. (Previously Presented) The thermal transfer material of claim 2, wherein the substrate comprises silicon.
4. (Previously Presented) The thermal transfer material of claim 3, wherein the substrate is a metalized silicon die.
5. (Previously Presented) The thermal transfer material of claim 1, wherein the heat spreader component comprises a metal, metal-based material or combination thereof.
6. (Previously Presented) The thermal transfer material of claim 5, wherein the heat spreader component comprises nickel, aluminum, copper or a combination thereof.
7. (Previously Presented) The thermal transfer material of claim 5, wherein the metal-based material comprises silicon, carbon or a combination thereof.
8. Canceled.
9. (Currently Amended) The thermal transfer material of claim [[8]] 1, wherein the thickness is from about 1 mm to about 5 mm.
10. (Previously Presented) The thermal transfer material of claim 1, wherein the at least one solder material comprises a metal, a metal-based material or a combination thereof.

11. (Previously Presented) The thermal transfer material of claim 10, wherein the metal comprises a transition metal.
12. (Previously Presented) The thermal transfer material of claim 11, wherein the metal comprises indium, tin, lead, silver, copper, antimony, tellurium or bismuth.
13. (Previously Presented) The thermal transfer material of claim 11, wherein the metal-based material comprises an alloy.
14. (Previously Presented) The thermal transfer material of claim 13, wherein the alloy comprises indium, tin, lead, silver, copper, antimony, tellurium, bismuth or a combination thereof.
15. (Previously Presented) The thermal transfer material of one of claims 12 or 13, further comprising a layer of a noble metal or a silicide former.
16. (Previously Presented) The thermal transfer material of claim 15, wherein the silicide former comprises silver, platinum or palladium.
17. (Previously Presented) The thermal transfer material of claim 16, wherein the silicide former is a flash layer.
18. (Previously Presented) The thermal transfer material of claim 1, wherein the solder material is directly deposited using electrodeposition.
19. (Previously Presented) A method of forming a thermal transfer material, comprising:
providing a heat spreader component, wherein the heat spreader component comprises a top surface, a bottom surface and at least one heat spreader material and wherein the heat spreader component comprises a thickness of about 0.25 mm to about 6 mm;
providing at least one solder material, wherein the solder material is directly deposited onto the bottom surface of the heat spreader component; and
depositing the at least one solder material onto the bottom surface of the heat spreader component.

20. (Previously Presented 1) The method of claim 19, wherein the solder material is further coupled to a substrate.
21. (Previously Presented) The method of claim 20, wherein the substrate comprises silicon.
22. (Previously Presented) The method of claim 21, wherein the substrate is a metalized silicon die.
23. (Previously Presented) The method of claim 19, wherein the heat spreader component comprises a metal, metal-based material or combination thereof.
24. (Previously Presented) The method of claim 23, wherein the heat spreader component comprises nickel, aluminum, copper or a combination thereof.
25. (Previously Presented) The method of claim 23, wherein the metal-based material comprises silicon, carbon or a combination thereof.
26. Canceled.
27. (Currently Amended) The method of claim ~~[[26]]~~ 19, wherein the thickness is from about 1 mm to about 5 mm.
28. (Previously Presented) The method of claim 19, wherein the at least one solder material comprises a metal, a metal-based material or a combination thereof.
29. (Previously Presented) The method of claim 28, wherein the metal comprises a transition metal.
30. (Previously Presented) The method of claim 29, wherein the metal comprises indium, tin, lead, silver, copper, antimony, tellurium or bismuth.
31. (Previously Presented) The method of claim 29, wherein the metal-based material comprises an alloy.
32. (Previously Presented) The method of claim 31, wherein the alloy comprises indium, tin, lead, silver, copper, antimony, tellurium, bismuth or a combination thereof.

33. (Previously Presented) The method of one of claims 30 or 31, further comprising a layer of a noble metal or a silicide former.
34. (Previously Presented) The method of claim 33, wherein the silicide former comprises silver, platinum or palladium.
35. (Previously Presented) The method of claim 34, wherein the silicide former produces a flash layer.
36. (Previously Presented) The method of claim 19, wherein the solder material is directly deposited using electrodeposition.